



## ***City of Maricopa*** **Preliminary Drainage Report Guideline**

**This form is a GUIDELINE to assist in the preparation of a Preliminary Drainage Report for submittal to and review by the City.**

### **REQUIREMENTS:**

#### **PRELIMINARY DRAINAGE REPORT REQUIREMENTS**

A Preliminary Drainage Report is required to be submitted with the Preliminary Plat and shall include the following items, as a minimum.

1. A Preliminary Pre-Development Drainage Map exhibit shall be included in the Drainage Report showing:
  - a. North arrow and scale
  - b. Property and Lot Lines
  - c. Legal Description
  - d. Location of existing major drainage structures
  - e. Location and size of any existing drainage easements
  - f. Drainage arrows and existing topography sufficient to determine existing drainage conditions
  - g. The limits and designation of any FIRM Flood Zones
  - h. The approximate limits of internal pre-development drainage areas
  - i. The calculated  $Q_{10}$  and  $Q_{100}$  volumes and the locations of the entrance and exit points for the pre-development off-site drainage affecting the property
  
2. A Preliminary Post-Development Drainage Map exhibit shall be included in the Drainage Report showing:
  - a. North arrow and scale
  - b. Property and Lot Lines
  - c. Legal Description
  - d. Location of proposed major drainage structures
  - e. Location and size of any proposed drainage easements
  - f. Drainage arrows and existing topography sufficient to determine the proposed post-development drainage conditions
  - g. The limits and designation of any FIRM Flood Zones and proposed changes to the Flood Zones
  - h. The approximate limits of internal post-development drainage areas and associated retention basins
  - i. The calculated  $Q_{10}$  and  $Q_{100}$  volumes and the locations of the entrance and exit points for the post-development off-site drainage affecting the property

City of Maricopa – Preliminary Drainage Report Guidelines

3. Include a discussion concerning all off-site drainage flows and patterns that affect the site, including the FEMA flood zones
4. Include a discussion concerning the low outfall elevation for the site, including the effects of an overflow situation in the case of storms exceeding the 100-year, 2-hour event.
5. Include a discussion concerning the minimum finished floor elevations within the development. The finished floor elevations must be a minimum of 12 inches above the high point of the building site or Lot or 12 inches above the water surface elevation of the  $Q_{100}$  flow in the adjacent street(s) or drainage ways (Pinal County Drainage Ordinance, Section 602.6).
6. Include a discussion of the Retention Requirements for the overall subdivision site and the intended plan for development. The discussion shall address the retention to be attained through Mass Grading of the site and the final grading of individual Parcels if the development is to be phased. The discussion shall also address the interim preventive measures, such as berms or temporary retention basins, proposed to prevent drainage from undeveloped areas of the site from entering the completed or partially completed Parcels.
7. Include preliminary calculations showing the volume of retention required and the volume provided for each retention basin for each drainage area.
8. Include a discussion of the required retention basin dry-up time through basic percolation or through the use of dry wells.
9. Include a discussion of the runoff flow in the streets and include preliminary street hydraulic calculations showing the designed Q volume that will be retained within the curbs and within the right-of-way limits for a representative example of street grades.
10. The Drainage Report shall be signed and sealed by the Engineer.